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AN OLD FIELD SCHOOL.

DO the readers of the MONTHLY know what is meant by an "old field school?" I have never heard the term except in Virginia, and even there it is fast falling into disuse. Thirty years ago, the Old Field School was an honored institution in Virginia. Washington, Henry, Randolph, Jefferson, Monroe, and many others whose names are illustrious, had spent their early days within its rough-hewn walls, and under the eye of some Dominie Sampson, whose birchen rod was considered a more able coadjutor than any text-book of the day. Academies, seminaries, institutions, were unfamiliar words to my childish ears; but old Gocomico school-house, how vivid is my remembrance of it! It stood remote from all habitations, at the edge of a stunted pine-wood, a wide old field stretching away in front; while beyond was the pebbly beach and rushing waters of the Potomac, and, far in the distance, the faint blue shores of Maryland. The hall was a low, dark room, built of unbarked pine logs, slabs of the same material forming the roofing. The light was admitted by two long loop-holes, formed by the omission of a log on opposite sides. The desks were ranged beneath these, the children thereby receiving not only a sufficient quantum of pure air, but often snow or rain commingled with the needful oxygen. The teacher's seat, opposite the only door, was honored by having a single pane of glass inserted in the wall. There stood his small pine-table, adorned with a ruler, an inkhorn, and sundry bunches of quills. Beside this was his high-backed, rush-bottom chair; and, leaning against the wall at his side, was the much-dreaded bundle of rods. Schoolmaster Sutherland was an old man, and inclined to the fashions of an olden time. His long white hair was knotted in a queue. The rubicund complexion indicated that temperance was not an essential qualification of a pedagogue. Yet he was hale and strong, as many a lad could testify. An Englishman by birth, tradition said he had once trodden the halls of Oxford, and was a graduate of Cardinal College; but, being the victim of unfaithful love, he had left England forever, and had buried himself in the wilds of Virginia, gaining his daily bread by teaching the Old Field School. He was, no doubt, a learned man; but

dissipation and misanthropy had dulled his intellect, and dried up the milk of human kindness in his heart. His pupils, varying in age from the child of six to the lad of seventeen, were the sons of the gentlemen and farmers of the surrounding neighborhood. These he drilled pitilessly in the Latin grammar, and woe to him who erred in case or declension. This, with Pike's Arithmetic and Adams' Geography, formed his "Circle of the Sciences." To the art of writing he paid much attention. One excellence, which is not so common at present, his pupils certainly attained to—that is, writing clearly and neatly, and spelling correctly.

One mellow autumn day, when nature had put on all her colors and veiled them over with silver tissue, was the last day of school at old Gocomico. I had idled on my way to school, loth to exchange the blue sky and purple river for the dingy school-room. I stole noiselessly to my seat, congratulating myself that the master had not seen me. His head was on his hand, his elbow on the table. A class of "juniors" were reciting a paradigm of the first declension of nouns, *sylva*. Twice did one boy give the wrong case-ending, and yet the old man had not raised his head, and the birch-rod was motionless. The older boys exchanged glances, and whispered something of intoxication. That class dismissed, a senior boy went forward to ask an explanation of a problem in the "Double Rule of Three." Several times did the boy state the question, and yet the master did not look up, but only replied in a dreamy manner, using a familiar phrase with him—"Ruminate and devise, lad; ruminate and devise." The boy returned to his seat, and an hour passed. A hush brooded over the room; a mysterious presence kept the boys quiet. At last the old man roused, removed his hands from his eyes, and looked around. A pallor was on his face that I had never seen there before.

"Lads, lads, lads," he said, slowly, "you may go home, and tell them Schoolmaster Sutherland is going to another school."

Some of the boys, not understanding, gathered around for explanation. But the master's mind was wandering, and he did not hear them. He went on, as if addressing a class—

"First conjugation—infinitive ending—*a—e—e—Amo—Amas—Amat—Amamus—Amatis—Amant*. Mere words, lads, mere words! for she said, '*Amo*,' once. Ellen said—" And again his head dropped down on the pine-table. The frightened boys spoke to him again and again; but it was all useless.

Schoolmaster Sutherland was dead. The pupils are scattered over the world now, and the Old Field School-house has long ago disappeared.

THE shadows of the mind are like those of the body. In the morning of life they all lie behind us; at noon we trample them under foot; and in the evening they stretch along and deepen before us.

MINNESOTA.

ITS PHYSICAL FEATURES, SOIL, AND CLIMATE—ITS EDUCATIONAL CONDITION AND PROSPECTS.

Area and Population.—The State of Minnesota was admitted into the Union in the year 1858. Its population in 1860 was 170,000. In 1865 it was 250,000, showing an increase of nearly fifty per cent during five years of destructive civil war. At this rate, it will double its population in ten years. Since the close of the rebellion, the influx of immigrants has been very great, and warrants the belief that ten years will not elapse before it will have a population of half a million. It embraces a territory of 83,521 square miles, equal to nearly two States like New York or ten like New Jersey. It extends from the British Possessions on the north to Iowa on the south, and from the Mississippi and Lake Superior on the east to the Red River of the North on the west. The sources of the Mississippi are within this State, that river being navigable 150 miles within its borders. The Falls of Saint Anthony, a few miles above the head of steamboat navigation, furnishes one of the most valuable water-powers on the continent.

Topography, Soil, Productions.—The surface of the State constitutes the summit of the great water-shed from which flows the Mississippi to the south, the Red River to the north, and the St. Louis and other lesser streams to the eastward into Lake Superior. Much of the southern portion consists of exceedingly productive rolling prairies. The atmosphere is singularly dry, and the climate remarkable for its salubrity. The black soil yields enormous returns to the busy husbandman. The wheat produced in 1865 is not less than 10,000,000 bushels. A comparatively small portion of the lands is yet brought under cultivation. The yield of the last season is said to average from twenty-five to thirty bushels per acre for the whole State. Some tracts are said to have produced over fifty bushels per acre. Corn matures and ripens within three months from the planting. Potatoes, turnips, and other esculents are produced in great quantities. The scenery flanking the Upper Mississippi is beautiful and grand. Through several hundred miles it is one continuous highland, superior in its attractions to the Highlands of the Hudson. It is truly the land of the "Laughing Water." Clusters and chains of lakes abound in all directions; there being, it is said, not less than ten thousand of these charming expanses.

Basis of Civilization.—To a State thus favored there can not be other than a splendid future. This region seems adapted to the development of a noble civilization. The majesty of the hills, the broad sweep of the prairies, the grandeur of the great river, now "gliding unvexed to the sea," the placid beauty of the *Mille Lacs*, and the murmuring music of the

merry waterfalls, all invite to greatness of mind, to largeness of heart, to energy of endeavor, and purity of purpose. There is a tremendous educating power in such a heritage as this. It is a powerful, eternal protest against the littleness generated by narrow State lines, the mental barrenness provoked by sterile sand-banks, and the moral corruption which naturally enough finds a congenial soil in the miasmatic effluvia of interminable swamps.

School-Fund.—The men who laid the foundations of the State, seem to have been inspired by the colossal facts which everywhere confronted their gaze. One-eighteenth of the entire domain was dedicated to the work of educating the people. That is to say, 4,640 square miles or 2,969,600 acres of the best lands in the State, were set apart for the creation of a fund for the support of common-schools. The minimum price at which these lands should be sold was fixed by law at five dollars per acre. The sales were commenced three years ago, and the average price realized is nearly \$6.50 per acre. The fund thus accumulated and securely invested, in three years, lacks but little of a million dollars, and the sales are but just begun. Governor Swift while in office, after a careful estimate of the value of these lands at the legal minimum, declared that the income to be derived therefrom would eventually be sufficient to support a school-system equal in efficiency to that of Massachusetts, for a population as dense as is that of the old Bay State. Minnesota is more than ten times as large as Massachusetts, whose population is not less than 1,250,000. A population of equal density would give 12,500,000 people to this State, and these figures, assuming the governor's estimate to be correct, will give some clue to the prospective value of the school-fund in store for her people.

School-System.—The school-laws are yet somewhat crude and ill-digested, but the code comprises within itself all the elements of a perfect system.

A normal school is in successful operation at Winona. It has a system of county supervision, the adoption of which was by law judiciously left optional with the respective counties. This law was made in 1863. About twenty counties have voluntarily accepted its provisions, and are now reaping, to greater or less extent, the advantages of a wise supervision. The salaries paid the superintendents in some cases are as high as \$1,000 per year. The other counties will soon avail themselves of this valuable aid to educational advancement. Institutes are annually held where superintendents have been appointed, and are exerting a marked influence upon the schools.

Educational Prospects.—The New England States being largely represented in the population, education finds great favor with the people; Minnesota must soon be in the front rank.

As an indication of the spirit of the people, we give some facts about

school architecture at some of the prominent points. St. Paul, with a population of 12,000, has erected four public school-houses, costing—one, \$6,000; two, \$8,000 each; and one, \$20,000. The last is one of the most imposing structures of the kind in the Northwest. Minneapolis, with a population of 5,000, is now erecting a school-building at a cost of \$25,000, in place of one destroyed by fire in 1864. La Scur, a small village, has recently completed a building at a cost of \$4,000. Mankato, with a population of about 2,000, is building a school-house at a cost of \$10,000. Red King, above Lake Pepin, is finishing a building at a cost of nearly \$20,000. Chatfield, in Fillmore County, about thirty-five miles southwest from Winona, has just dedicated a school-house costing \$6,000. Lake City, with a population of 1,500, recently opened her public-school in a brick edifice erected at a cost of about \$10,000. Winona is preparing to build one at an expense of \$30,000. Other places are moving with like liberal intentions. Is not this a fair record for a State only eight years old? It is only a beginning. It is estimated that the State Normal School building will cost from \$50,000 to \$75,000. This will undoubtedly be commenced in the spring, and when completed, will compare favorably with similar edifices in older States. With such material and social advantages, no State offers greater inducements to the seeker of a good home than does Minnesota, the "Laughing-Water State."

THE FIRST ADVANCE.

HOW to commence the education of children is an important question. The best answer to it is, follow nature and the inclination of the child. Almost all young children have their specialties. Any one of these can be used as a medium for the admission of other necessary portions of education. For example—this communication is written in presence of a child who, at three years of age, exhibited a preference for the study of animal life. Goldsmith's *Natural History* was given to it, in which there are three hundred pictorial representations of different animals. The child could not read, but, by questioning its elders, it soon learned the names of the beasts, birds, etc., depicted. As it earnestly wished to know the habits of the various creatures, and could not, save through the kindness of its playmates, it acquired the knowledge of the use of reading. But the white bear and the lion live in different localities—enter Geography. Again, some animals are formed to live on land, others in the sea, and some may be said to tenant the air—Natural Philosophy is waiting for admission. It would be tedious to carry this statement further; suffice it, all the elements of an English education could be introduced under the requirements necessary for the development of this one study of Natural History.

If there is manifested no special inclination, an opening can be artificially created; as: "Joe, you have been a good boy, you may run to the store and buy yourself an apple. But I have no small change, and you can not count money, so you must wait until I come home from the city, when I will bring you one." Joe studies this lesson, and soon acquires the knowledge of the use of arithmetic. In a short time he asks to be taught to count money. The child desires to enter, and the door is opened. The battle is half won; and, as before, through this gate you can naturally and easily bring in Arithmetic's brothers and sisters. No lesson ought to be placed before a child, until the need of it has been exhibited and proved to the little one's satisfaction. It is important that the will of the child to learn should precede the offer of the parent to teach. This is the natural and proper way in which to commence the education of children.

Affection also can almost always be relied upon as a means by which to establish a proper entrance for early knowledge. When William Cobbett was imprisoned in Great Britain for the free expression of his political opinions, he required and received weekly letters from all the members of his family. Some of his children were very young: they did not know how to write. They, however, sent scrawls to their father. He carefully answered these hieroglyphics in a few short words. "What a pity, Richard, you can't write like your sisters—something that father can read," said Mrs. Cobbett. Jane has her letter in her hands, but she can not read it. She can learn her lesson from it though—it is, the necessity for the knowledge and the use of reading. The child is ready and willing to advance up the hill of learning; it will not ascend it less rapidly because it is not driven forward on its journey.

Both parents and teachers should remember that the word education means "to lead out." Under the old system, the practice of which is by no means extinct, it might be presumed to imply—"to cram in." Such is education on the Blimber principle. A school or family so conducted, may be said to consist of so many little vessels exposed daily to be filled with a certain quantity of orthography, arithmetic, etc., properly weighed and labeled, with directions to be taken at regular intervals, and at certain specified periods. It is melancholy to behold the rows of little patients taking their morning and afternoon medicine, as thus administered. The tortures of Luke under his iron crown, or Regulus in his barrel, could scarcely surpass the mental and physical agonies sometimes suffered by the little martyrs when racked on these Procrustean beds, in order to advance their growth in irresistible intelligence and dogmatic wisdom.

IMPORTANCE OF PUNCTUATION.—"Wanted: A young man to take charge of a pair of horses of a religious turn of mind." A school committee-man writes: "We have a school-house large enough to accommodate four hundred pupils four stories high."

HOMINITIC GEOGRAPHY.

[Said to have been prepared for the late Exhibition in Sloutown Academy.]

Dramatis Personæ—TEACHER AND PUPILS.

[Each pupil may recite more or less, according to the number of pupils. Names are left to the option of the teacher.]

Teacher. What lesson have we to-day?

Pupil. The Anthropean Confederacy.

T. Of how many states does this confederacy consist?

P. Five.

T. Name them.

P. Matter-o'-money or Matrimony, Single-Blessedness, Despondency, Perfection, and Bliss.

T. Give the situation of the confederacy.

P. Its situation is somewhat uncertain, extending through many degrees high and low. It is, however, bisected by the meridian of life.

T. Bound the state of Matrimony.

P. It is bounded on the north by the land of Milk-and-Honey, on the east by Single-Blessedness, on the south by Despondency and Perfection, and on the west by Bliss.

T. What can you say concerning this state?

P. Very little is known respecting it. Those who have attempted to explore it have seldom returned. It is popularly supposed to be a pleasant country, abounding in delights; but the few who have escaped by way of the Divorce and Desertion Railroad represent it as especially productive of bribes and broomstick material.

T. What is the character of its inhabitants?

P. They are very peculiar. They often disturb the peace of their neighbors by petty commotions. Their literature is said to consist principally of certain lectures—a species of amusement unknown in other countries.

T. What is the capital of this state?

P. Loveburgh, on the River Truelove. A populous town, yet utterly without public spirit.

T. State the peculiarity of the Truelove.

P. It is an insignificant stream, and frequently dries up. In freshet seasons it is very turbulent. The old proverb says, its course never runs smooth.

T. What town in the interior, noted for bald heads, elopements, etc.?

P. Henpeckton. Its inhabitants are a dismal race. The men undergo great sufferings. The women possess all authority, and oppress the town.

T. Would any of you like to live there?

Class (emphatically). No, sir.

T. In what state do we live?

P. In the state of Single-Blessedness.

T. Bound it.

P. It is bounded on the north by the Gulf of Oblivion, on the east by Time's Ocean, on the south by Despondency, and on the west by Matrimony.

T. Describe this state.

P. It is the most delightful state of the confederacy. The inhabitants are gay, and give much attention to the fine arts—pleasing, deceiving, and the like. Great accuracy has been attained in dress, smiling, and in articulating the language.

T. What are the chief occupations of the people?

P. Hunting and fishing.

T. For what?

P. The men hunt for companions, and women fish for beaux.

T. What is the capital?

P. Flirt-town, on Jilting Creek.

T. For what is Flirt-town noted?

P. For its marriageable old women and gay young men; for broken hearts and sore disappointments; also, for the large number of persons annually reported as "engaged."

T. Are there any other important towns in the state?

P. Breach-of-Promiseville and Coquetton; situated near each other.

T. For the next lesson, the class may take the states of Despondency and Perfection. Any questions to be asked about the lesson?

P. (*raising his hand.*) Do you live in Flirt-town, on Jilting Creek?

T. Why, Johnny?

P. I heard ma tell some ladies the other day that you were engaged to Susan Miller.

T. (*sternly.*) John, you may stay after school. The class is dismissed.

IMAGINATION.—The beautiful faculty of the imagination, when it has been properly trained, is a perpetual well-spring of delight to the soul; but, when foully or improperly trained, is a source of constant uneasiness. Its functions are mixed up with all our joys and our miseries. The words Fancy and Imagination are often used as if they meant the same thing. Fancy is the painter of the soul. Imagination has an ampler mission, and does more than mirror outside objects to the soul. It takes up the conceptions we have formed, and improves on them; arranges them in novel combinations; and, from the exact delineation or portrait of things transmitted through the senses and retained by memory, it works up new ideas. Imagination is the poet of the soul.

WONDERFUL PROPERTIES OF FIGURES.

THOUGH figures constitute a universal language among the civilized nations of the earth, and maintain such an exalted character for honesty and truth that it has passed into a proverb that "figures can not lie;" yet they are treated as the mere slaves of calculation, without any regard for that respect and consideration to which their peculiar qualities entitle them. To rescue them from the degradation of being looked upon as mere conveniences, let us see if they are not possessed of certain intrinsic properties which shall excite our wonder and admiration.

Few people have a clear conception of even "a million of dollars." Mr. Longworth, who recently died at Cincinnati, was said to be worth fifteen millions of dollars. How many days would it take to count that sum, at the rate of fifty dollars a minute, working steadily ten hours each day? While some are guessing four or five days, another a week, another two weeks or a month, the operation may be made mentally. Fifteen millions divided by fifty gives three hundred thousand minutes; divided by sixty gives five thousand hours; divided by ten gives five hundred days! An answer which is sure to strike your guessers with amazement; a remarkable instance of the difference between guessing and thinking.

The powers of the human understanding are limited. The increase of figures has no limits. Our knowledge of numbers, therefore, must necessarily be limited. But, like every other subject, the more we study and think about it, the more we shall know. A distinguished philosopher, to whom the world is indebted for some of the grandest truths of science, has said that, without any extraordinary endowment of mind, by thinking long and deeply on this subject, point after point gradually unfolded itself to his mental vision, until he was able to comprehend the mighty laws which control the universe.

The child who has learned to count as far as three, has an idea of that number; but the number thirteen is quite beyond his comprehension. The savage gets along very well with his arithmetic, so long as he is not required to go beyond the numeration of his fingers and toes; but any greater number quite bewilders his imagination, and, in despair, he refers to the hairs of the head, the leaves of the forest, or the sands on the seashore, to express his overwhelming sense of its magnitude. Every young student of history has laughed at the extreme simplicity and ignorance of the Indian whom Powhatan sent to England to see the country and find out how many people were there. As soon as the shores of England were reached, the "poor Indian" procured a long stick and commenced to cut a notch on it for every one he saw. Of course, he was soon obliged to stop.

On his return, Powhatan, among many questions, asked how many people he had seen. "Count the stars in the sky," was the reply, "the leaves on the trees, or the sands on the shore; for such is the number of

the English." Perhaps this untutored child of the "forest was not so very far astray after all ; for the stars in both hemispheres, visible to the naked eye, do not exceed the number of ten thousand. The hairs of the head and the leaves of the trees may be easily counted, and the sands of the seashore are by no means innumerable.

POWER OF CIPHERS.

The enlightened man may have a clear understanding of thousands, and even millions ; but much beyond that he can form no distinct idea. A simple example, and one easily solved, will illustrate the observation. If all the vast bodies of water that cover nearly three-fourths of the whole surface of the globe were emptied, drop by drop, into one grand reservoir, the whole number of drops could be written by the two words, "eighteen septillions," and expressed in figures by annexing twenty-four ciphers to the number 18 (18,000,000,000,000,000,000,000,000). Man might as well attempt to explore the bounds of eternity, as to form any rational idea of the units embodied in the expression above ; for, although the aggregate of drops is indicated by figures in the space of only one inch and a half of ordinary print, yet, if each particular drop were noted by a separate stroke like the figure 1, it would form a line of marks sufficiently long to wind round the sun six thousand billions of times !

Now, observe, if you please, the marvelous power or value which the ciphers, insignificant by themselves, give to the significant figures 18. The young reader will be surprised to learn that the use of the cipher to determine the value of any particular figure, which is now practiced by every schoolboy, was unknown to the ancients. Therefore, among the Greeks and Romans, and other nations of antiquity, arithmetical operations were exceedingly tedious and difficult. They had to reckon with little pebbles, shells, or beads, used as counters, to transact the ordinary business of life. Even the great Cicero, in his oration for Roscius, the actor, in order to express 300,000, had to make use of the very awkward and cumbersome notation, CCCIDCCC CCCIDCCC CCCIDCCC. How very odd this seems—"in the year of our Lord MDCCCLXVI!" (1866.)

Many curious and interesting things might be said concerning the history of numerical characters used in ancient and modern times ; but, not to prolong this article, they must be reserved for some future occasion.

CURIOUS CALCULATIONS.

The simple interest of *one cent*, at six per cent per annum, from the commencement of the Christian era to the close of the year 1864, would be but the trifling sum of one dollar, eleven cents, and eight mills ; but if the same principal, at the same rate and time had been allowed to accumulate at compound interest, it would require the enormous number of 84,840 billions of globes of solid gold, each equal to the earth in magnitude, to pay

the interest ; and if the sum were equally divided among the inhabitants of the earth, now estimated to be one thousand millions, every man, woman, and child would receive 84,840 golden worlds for an inheritance. Were all these globes placed side by side in a direct line, it would take lightning itself, that can girdle the earth in the wink of an eye, 73,000 years to travel from end to end. And if a Parrot-gun were discharged at one extremity, while a man was stationed at the other,—light traveling one hundred and ninety-two thousand miles in a second—the initial velocity of a cannon-ball being about 1500 feet per second, and in this case supposed to continue at the same rate, and sound moving through the atmosphere 1120 feet in a second,—he would see the flash after waiting one hundred and ten thousand years ; the ball would reach him in seventy-four billions of years ; but he would not hear the report till the end of one thousand millions of centuries.

The present system of figures is called the Arabic method, but it should be more properly termed the Indian method, because it had its origin among the Hindoos of India, from whom the Arabs learned it ; and they, in turn, carried the art into Spain, where they practiced it during their long occupation of that country.

The publication of their astronomical tables, in the form of almanacs, was the principal means of gradually spreading it abroad among the surrounding nations ; but so slow was the progress, that it was not generally established until about the middle of the sixteenth century.

THE NUMBER OF LANGUAGES.

THE actual number of languages in the world, is probably beyond the dreams of ordinary people. The geographer Balbi enumerated eight hundred and sixty distinct languages, and five thousand dialects. Adelung, another modern writer on this subject, reckons up three thousand and sixty-four languages and dialects existing, and which have existed. Even after we have allowed either of these as the number of languages, we must acknowledge the existence of almost infinite minor diversities, for almost every province has a tongue more or less peculiar ; and this we may well believe to be the case throughout the world at large. It is said that there are little islands, lying close together in the South Sea, the inhabitants of which do not understand each other. Of the eight hundred and sixty distinct languages enumerated by Balbi, fifty-three belong to Europe, one hundred and fourteen to Africa, one hundred and twenty-three to Asia, four hundred and seventeen to America, one hundred and seventeen to Oceanica—by which term he distinguishes the vast number of islands stretching between Hindostan and South America.

MATHEMATICAL GEOGRAPHY.

THERE is probably no subject so universally studied, and so little understood by the pupil, as Mathematical Geography. The reasons for this, I think, are two, which, I concede, are equally applicable to other subjects. First, *It is presented to the pupil at the wrong time.* The first pages of nearly every primary and intermediate geography are devoted to it. Now, to pupils at the age usual to such classes, an extended treatise upon geometry would be equally intelligible. By dint of hard work, certain definitions are committed, which, if the teacher hear soon, can be recited. The same would be true of geometrical definitions, presented abstractly. But that the pupil understands them, I have never found a teacher bold enough to affirm. Yet, in spite of this, every successive class is put through the same drill, to the infinite disgust of both teacher and pupil. Second, *It is presented in the wrong manner.* Usually a book is placed in the pupil's hands, and he is told to learn more or less of this subject. Now succeeds a week or more of patience-trying recitations, until he is fairly through "zones and circles." Constant reiteration does not fail to leave some faint impressions of the subject, which usually entirely disappear before the pupil reaches the "map of Europe."

The remedy for this is as plain as the cause of the defects, and equally as simple.

First, *Present the subject at the proper time.* All will agree that it is useless to present any subject to a pupil until he is of sufficient age and development to understand it. Now, my experience has been, that no pupil in a primary school can answer these conditions in respect to mathematical geography; and it is not until we reach the second or first classes of our grammar-schools, that we can find such pupils. Pupils can be found in primaries, even, who can answer the questions in the textbook, but this is no sign of comprehension of a subject. A maturity of mind is required which can be obtained only by long training. For the subject is abstract to a much greater degree than any study of early school-life; and it is not until a pupil has had sufficient discipline of mind to enable him to grapple with the abstract, that this subject can be advantageously presented to him. We repeat, then, that this discipline is not usually reached until in the second or first class of the grammar-school. Therefore, in graded schools, the subject is more profitably presented then than at any earlier period.

Having now secured pupils capable of understanding the subject, the second requisite for success is this: *Present the subject in the right manner.* Granted; but what is that? Certainly not to assign a page of it to be committed to memory for the next day's recitation. Without claiming the following method as the right way, I suggest it as better than the one

usually followed. I write upon a large card or blackboard the following analysis. As we progress, I have each pupil make a copy. Some teachers may prefer a different arrangement in a few places. Some, too, would add, and some take away from it. But still the idea will be the same.

GEOGRAPHY.	1. MATHEMATICAL.....	1. Shape of Earth....	<ul style="list-style-type: none"> 1. Proofs of Globular shape. <ul style="list-style-type: none"> 1. Appearance of Ship at Sea. 2. Appearance of Polar Star. 3. Appearance of Earth's Shadow. 10. Analogy. 2. Proofs of Spheroidal shape. <ul style="list-style-type: none"> 1. Varying vibrations of Pendulum. 2. Measurement of degree of Latitude. 5. Analogy.
		2. Size of Earth.....	<ul style="list-style-type: none"> 1. Diameter... Polar. 2. Circumference. Equatorial. 3. Area in square miles. 4. Cubical contents in miles.
	2. PHYSICAL.....	3. Points, Lines, and Circles on Earth.	<ul style="list-style-type: none"> 1. Poles..... North. South. 2. Lines..... Axis. <ul style="list-style-type: none"> Great. Equator. Meridians. Rational Horizon. 3. Circles..... <ul style="list-style-type: none"> Small. Parallels. Tropics. Polar Circles. Sensible Horizon.
			<ul style="list-style-type: none"> 1. Hemispheres. East. West. North. South.
	3. POLITICAL.....	4. Divisions of Earth by Circles.	<ul style="list-style-type: none"> 2. Longitude.. East. West. 3. Latitude... North. South. 4. Zones..... <ul style="list-style-type: none"> 1. North Frigid. 2. North Temperate. 3. Torrid. 4. South Temperate. 5. South Frigid.
			5. Motions of Earth. <ul style="list-style-type: none"> 1. Daily. 2. Yearly. 3. In Common with Solar System.
		6. Position of Earth.	<ul style="list-style-type: none"> 1. Distance from Moon. 2. Distance from Sun. 3. Distance from nearest Fixed Star. 4. Distance from other Planetary Bodies. 5. Inclination of Axis.
		7. Effect on Earth of Motion and Position.	<ul style="list-style-type: none"> 1. Day and Night. 2. Change of Seasons.
		8. Modes of Representing Earth.	<ul style="list-style-type: none"> 1. Globe. 2. Orrery. 3. Armillary Sphere. 4. Tellurian. 5. Maps. 6. Charts.

I commence by instructing the pupils, first, the definition of geography and its three great divisions, with definitions of each. Then, taking the first division of mathematical geography, I illustrate the shape of the earth in all practicable ways, and give as many proofs, with their illustrations, as I think the class may be able to comprehend. The next day I *educate* the pupil. He is required to produce the lesson of the previous day. He gains his knowledge for this purpose from my explanations of the day before, and from books to which he was referred.

To illustrate: without any question or direction from the teacher, the first pupil rises and gives the definition of geography; the next, its divisions; the next defines each of the divisions; the next gives the eight divisions of mathematical geography; the next, the shape of the earth; the next gives proofs of its globular shape, etc., etc.

I then run the plowshare of some practical question through the even plane of this recitation, to discover, if possible, any rocks of ignorance or roots of errors. Finding none, I go on with the next day's lesson, which, in connection with the first day's, is reproduced upon the third day.

I find these advantages in this plan:

1. The teacher must be thoroughly acquainted with the subject: his explanations then are clear, and the pupil readily comprehends.
2. The pupil, instructed by a *live* teacher, finds the subject interesting, and, therefore, easily learned.
3. By following this outline, a number of days' lessons are easily recited in a short time. This repetition serves to fix them in the memory, and to reveal any parts not clearly understood. It also obliges absent pupils to look up the lesson given in their absence.
4. It is more sensible than the question and answer system; and common sense is as much valued by pupils as by many who are older.

A SINKING CITY.

THE commune of Buonanotte, in France, is hourly menaced with utter destruction. Five manufactories have already been overthrown, and sixty-four more are threatened with imminent ruin. The inhabitants have fled in the greatest consternation to the neighboring villages. The cause of the disaster is a sudden and violent depression of the soil, which is at the present time accounted for by one of two reasons—either the fall of an immense mass of earth in the west of the district, or the yielding of the roof of an extensive subterranean cavern. But in reality nothing certain is yet known as to the cause of this most deplorable event. A number of civil engineers have hastened to the spot, and prompt measures are in course of adoption to prevent still greater disaster.

JULIAN GURDON: SCHOOLMASTER.

CHAPTER III.

MAKING A BEGINNING.

THERE was neither bell nor knocker, and I was forced to beat loudly with my clenched hand upon the panels of the outer door. A distant sound, like a subdued roar, reached me after the first summons. With the second, the sound changed to a bellow, with something articulate in it, that, to my waiting ear, conveyed the welcome answer, "Come in!"

I opened the door then, and entered the hall—a large square hall, severely, coldly clean, with a yellow painted floor, and a great uncarpeted flight of steps in the center. On the whitewashed wall, between two doors, hung a smoke-discolored map of the United States, and underneath this stood a small table covered with green baize. Other furniture the place had none; and I stood there holding the open door by one hand and my valise by the other, wondering which of the four doors leading from this cheerless apartment would admit me to the sight of fire and human faces.

I could hear voices, but no one came to greet or show me the way. I stood upon the threshold of this strange home as I did upon that of my new life, wondering vaguely, and not quite cheerfully, whither my steps were to tend, and what was to be the result.

At length the voice I had heard before disengaged itself from the mingled sounds within. Unmodulated and harsh it fell upon my ear:

"Come in, can't ye?" it said. "What on airth are you waitin' for?"

Thus adjured, I closed the outer door, set down my valise, and went forward in search of the bodily presence of the invisible voice. I opened a door on my right, and stepped into the family circle of Deacon Lawrence.

"I s'pose you thought we kep' servants here to run and open the door for you," the voice continued; and the next moment the owner of it rose up from his great three-cornered armchair by the Franklin, where a large wood-fire burned—an elderly man, huge of form, with bushy grizzled hair, and eyebrows beneath which twinkled a pair of keen gray eyes. He did not advance to meet me, and I stood upon the threshold abashed.

"Come along in, come along in," he said, in a tone considerably softened. "You're the new schoolmaster, an't you? Come in, I say, Mr. —; you're kindly welcome."

As he said this, I had gone forward, and laid my slender boyish hand in the great brown palm stretched out to me. The last words reassured me. For once the voice was not an index of the man's nature. It was not refined nor genial, but it *was* kindly.

"Wet and cold, an't you?" Deacon Lawrence continued. "Lizzie, bring a chair. This is Mis' Lawrence, Mr. ——." Again a pause, in which I interpolated "Gurdon." "Ah, yes, Gurdon, yes, yes; and these are my darters, Lizzie, and Ruth, and Emeline; and this is George; and this is the Widow Barnett's boy, Thomas, and the rest of them will be in by and by. Most half your school here, Mr. Gurdon. Mis' Lawrence, Mr. Gurdon ought to have his supper right off. An't it most ready?"

I had bowed all round, and now sat down shivering with cold, and overpowered with bashfulness before the fixed stare of at least five out of the seven pairs of eyes by which I was surrounded.

The mother and her eldest daughter withdrew, and a welcome sound of hissing and frying, together with a most savory smell, soon issued from the adjoining apartment, which was evidently the kitchen.

Deacon Lawrence resumed his chair and pipe, and continued to smoke and talk. The two daughters, girls of sixteen and fourteen, and the boys, younger urchins, stared at me intently. I answered in monosyllables. The dreariness of the closing day, the fierce dash of sleety rain against the windows, the unaccustomed scene, and the thought of the strange duties to which it was a prelude, all weighed upon my spirits. For the second time in my life I felt homesickness—that fever of the heart—and longed for the touch of my mother's hand, her kiss upon my brow, and her voice in my ear. That half-hour, in which I waited for my supper, was the longest of my life; and nothing but the knowledge of the utter impossibility of escape kept me from rushing out into the storm to retrace my steps. But I thought of the savory supper preparing for me; of the good deacon's attempts at my entertainment; and then came the sudden thought of how these, my future scholars, would despise me if they could once know how terribly I was afraid of them. There was something ludicrous in the idea that I, Julian Gurdon, was, in spite of my social advantages and my education, afraid of these little rustics staring at me with their round un-winking eyes, in which not much of the light of intelligence shone, and I laughed aloud.

Deacon Lawrence paused in his harangue, amazed. The staring eyes turned from me to exchange glances. But the laugh had broken the painful charm that bound me. I was myself once more, with mind active and alert. The harsh, prosy voice, the round, staring eyes no longer held me as in a spell, and, with another laugh, I lightly explained that the memory of some ludicrous incident of my journey had caused the explosion. I related it with all the humor I could bring to my aid, and before I had finished, my audience were joining in the laugh.

We were called to supper, and over the smoking viands our merriment must be explained, and was renewed. The deacon's eldest son, Robert, had come in. He was older than I, and pretty well informed. We fraternized at once, and kept the table in a roar. Before we rose, I knew I

had made my standing sure in at least one house, and that, I shrewdly suspected, the most influential one in the parish.

Much earlier than my town-life had accustomed me to retire, I was shown up the broad stairs to a large low chamber above. Here was another uncarpeted floor, shining with cleanliness and yellow paint, a tent bedstead, round which hung white drapery with knotted fringe, and beneath the patchwork quilt of "rising sun" pattern, a mountain of feather-bed; white curtains, a little white toilet under the mirror, with its carved frame adorned with plummy asparagus and two glittering peacock's feathers; a chest of drawers reaching to the ceiling, and six painted chairs ranged formally against the wall. It was chilly, and a certain dreariness, that often presides over country "best rooms," pervaded the place. However, I would not think of it. Having read a brief chapter in my mother's Bible, which had always lain by my pillow since I went to college, I hastily undressed, and climbed up to the towering bed; made one fearful plunge, and sank to unknown depths of billowy softness.

It was long before I slept, oppressed alike by thought, and by a feeling of suffocation, as that mass of feathers closed about me. Still, I would not yield—I was determined to be brave, and I had the comfort of an approving conscience. I listened to the howling of the storm, thought of home, and of the untried future. At last, after what seemed hours of tossing wakefulness, I fell asleep.

I was aroused from the realm of dreams by the touch of a heavy hand, and the sound of a loud, but pleasant voice. I looked up. The sun shone brightly through the snowy curtains, the room looked cheerful in its quaint simplicity and cleanliness. Robert Lawrence stood by my bedside, a jovial giant of twenty, and "guessed I had overslept myself, for the chores were all done, and the breakfast was getting cold."

In five minutes I was greeting the bright morning faces round the plentifully spread breakfast-table, cheerful and elate. All my forebodings had fled before the brightness of the new day. I felt strong enough for all it held in store for me.

After breakfast I followed Robert to the spacious barns and sheds that surrounded the farm-yard. Here were evidences of thrift and care, and wealth in flocks and herds.

"The old man says, 'The merciful man is merciful to his beast,'" said Robert. "Father lodges his cattle better than his children."

I glanced at the grim, almost ruinous house, and thought he was right.

"That old stern jail," continued Robert, "was built by the first Lawrence who came up the river to settle here. He was a 'Pilgrim father,' they say, but he liked this country better than Plymouth Rock, though there was nothing but woods here in them days—woods and Indians. He was the parson. His wife and the other women partly walked and partly rode the milch-cows all the way from the river. I'd like to have seen

them coming through the woods. The old house was part dwelling, part fort, where all the folks hurried together when the Indians came, first sneaking, and then whooping round. It's awful old, and father says he don't mean to live in it more'n another year. He's going to build a frame house adjoinin', next summer."

I looked with more interest at the quaint old mansion, with its yard, thick gray walls, and small windows, as this story was told me. The centuries had done their work upon it truly, and it was fast yielding to the invisible corroding fingers. It was a landmark of the ages, a relic of a wonderful past, which held in its embrace a faith, an energy, an enthusiasm, such as the world will hardly witness again.

But now my thoughts would cling to the present. My own cares claimed precedence. I questioned Robert about the district and the school, and learned that affairs were almost wholly under the direction of Deacon Lawrence. That the school was small in numbers, but contained some unruly elements—big boys who felt it beneath their dignity to obey, and girls who preferred rude fun to study, and had each her chosen champion in the school.

"I reckon you'll have a pretty hard time on't," said Robert, compassionately. "You don't look stout enough to lick some of them fellows, and if you don't lick 'em, they'll turn you out as sure's your name's Gurdon. But I'll help you all I can."

I confess I quailed a little at this information, but I answered pleasantly :

"It's early days yet to talk about 'licking,' and what I'm strong enough for. Perhaps I shall not have occasion to test my strength. But are you to be one of my pupils, Robert?"

"Oh, yes ; and father said, as you was college larnt, perhaps you'd teach me Latin, and some of them things, evenings. I expect to go to college myself when I'm out of my time."

I did not quite understand this, but I readily promised. As it was now time to prepare for school, I returned to the house to unpack my trunk and take from it such articles as were for use at the school-house.

"Keep a stiff upper lip with them boys, Mr. Gurdon," said the deacon, as I came down. "It don't take them long to find out what a teacher's made on. Jest let 'em know that you're master at the set-out, and I don't *think* you'll have any trouble. But if you *do*, I'll stand by you, as long as you're right."

I thanked the good man, but his words gave me food for thought. Already had I been twice warned, and twice had I received offers of assistance. Would it be needed? Did they already distrust my ability to manage this little country-school?

I was not over-confident, but I thought that I should not yield to brute force. I did not mean to punish by the rod. I felt sure that other means could be adapted to insure discipline, order, and attention. I would make

the trial, at all events, hoping to succeed. If I failed, the other alternative could be adopted as the last resort. But I did not intend to fail, and I did not intend that my hand should be instrumental in degrading a fellow-creature by corporal punishment. Such were my reflections as I walked with Robert toward the school-house.

The ground was very muddy after the late storm, and I saw groups of children of all sizes picking their way, by field and road, all in the same direction. Arrived at the old brown building, I saw a considerable crowd of children and young people of various ages gathered about the door. At our approach all dispersed, and I entered the building, amidst perfect stillness, and saw, ranged along the seats on three sides, all whom I had just before seen about the door.

I walked up to the desk, amidst the breathless silence, and glanced around.

Thirty pairs of round, wide-opened eyes, expressing curiosity, were upon me. Not a lash moved, not a finger stirred. The most riotous reception would have embarrassed me less. I wished, but hardly knew how, to break this stillness. Robert came to my assistance.

"Children," said he, "this is the new schoolmaster, Mr. Gurdon. I expect you've made up your minds to 'tend to your books, and obey him ; but if you don't, father told me to tell you 'he'd know the reason why,' and so shall I."

He was silent, but looked rather significantly upon a pair of brawny arms and stout fists. As if touched by a spring, every one rose. The girls courtesied, the boys bowed awkwardly, and then, as simultaneously as they had risen, they all sat down again. Another silence ensued. I laid aside my overcoat, and deposited books and writing materials upon the unpainted desk. Then I said, addressing the school :

"We have come together, children, I to teach, you to learn. In order that we both perform these duties well, there are others which must also be attended to. I shall feel an interest in your welfare and improvement, and devote my time and thoughts to you, earnestly and fully, seeking the best ways of improving you. In order that I may succeed, I shall expect you to be quiet, orderly, and studious, always endeavoring to profit, both by what you learn from your books, and by my instruction. I shall expect you to assemble regularly, to obey every signal made by me, and to be courteous to each other and to your teacher. I will commence now with the eldest, and each may bring his books to the desk, and give me an account of his present scholarship, and what his expectations are for the winter."

As I concluded, the thirty pairs of eyes intermitted their steady stare. Glances were exchanged, a titter ran round the benches, and a loutish fellow, considerably larger than myself, came forward with two or three tattered books in his hand. As I sat in my chair beside the desk, he stood gazing down upon me with half-savage insolence.

The name of this young giant was JAMES LORD. His books were a worn English Reader, a spelling-book with one cover gone, and a Daboll's Arithmetic in nearly the same condition. "He was eighteen years old," he said, "worked on farms, where he was hired, in the summer, and sometimes went to school in the winter. Calculated to read and spell, and mebbly write some, and s'posed he'd orter larn how to add and multiply, 'cause he got cheated in his wages last summer."

There were two or three other "big boys," with the same aspirations. The younger boys had spelling-books and "Easy Lessons" for reading. Robert Lawrence had grammar and algebra in addition to his arithmetic, and there were a few simple text-books on geography on the boys' side of the house.

The girls' ideas of tuition were not much more exalted. Some brought the New Testament to read from, but the English Reader and Easy Lessons were the standard reading-books. Almost every girl, advanced beyond simplest reading, had "Peter Parley." There was not a map, chart, or blackboard upon the wall, nor an article of apparatus belonging to the building, if we except a huge ruler of walnut, which, to my eye, seemed better adapted for use as a bludgeon.

With the aid of these unpromising appliances I was expected to continue, in Greenvale, the process of educating its unsophisticated youth. Every face bore a complaisant and satisfied expression, as the books were exhibited. In this case "ignorance was bliss," undoubtedly, and they reveled in it.

I soon saw what the day's exercises must be: a reading class of big boys and girls, in the English Reader; another of smaller boys and girls, in Easy Lessons. I did not approve of the Scriptures for this purpose, but meant to read them stately and reverently myself to the assembled school.

Then there were two or three classes in spelling, and some little children stumbling through the alphabet and words in one or two syllables; and a few in grammar, geography, and arithmetic. These I found it difficult to class, for scarcely two were of the same advancement, and all insisted on proceeding independently from his or her own last lesson at the school of my predecessor. I trusted, however, to another day to bring order out of this chaos, hoping to introduce new text-books and organize new classes.

MEERSCHAUM is made on a large scale by saturating carbonate of magnesia in silicate of soda or soluble glass—care in selecting a good quality of magnesia and silicate being the only requisite for success. The profits are immense. A pipe made of the "foam of the sea," as smokers verily believe, costs for material about five cents, leaving the balance for labor.

FRANCIS WAYLAND, D. D., LL. D.

IN the death of this eminent scholar, the cause of education has suffered almost irreparable loss. For thirty years at the head of one of our oldest universities, he exerted, perhaps, as powerful an influence in molding the character of the young and in promoting the interests of education throughout the country, as any man in the United States.

FRANCIS WAYLAND was born in the city of New York, March 11, 1796, of English parents. His father, a Baptist clergyman of considerable ability, was settled as a pastor, first in New York city, afterwards at Poughkeepsie and Saratoga Springs. The family removed to Poughkeepsie, where Francis was placed at the academy, and pursued his classical studies under the late Daniel H. Barnes. In 1813, when only seventeen years old, he graduated with honor at Union College, and showed, even at that early age, a marked predilection for metaphysical and economic studies. Immediately after graduating, he entered the office of Dr. Eli Burritt, of Troy; and, after three years of medical study, was licensed to practice his profession. During his medical course, however, he felt called upon to consecrate his life to the Christian ministry. He spent a year in the seminary at Andover, and in 1817 was induced to accept a tutorship in Union College. He continued his theological studies, and mingled with them the study of several branches of literature and science. He remained here four years, taught in nearly every department of college instruction, and began that diversified culture which distinguished him in after-life.

In August, 1821, he was ordained, and settled as the pastor of the First Baptist Church in Boston, and resigned his position in 1826, to accept the professorship of mathematics and natural philosophy in Union College.

Soon after he had entered upon his duties here, he was elected president of Brown University, and was inaugurated February, 1827. The circumstances in which he found the college were by no means favorable. It was scantily endowed, had little apparatus, and a small library. The want of discipline was so great, that the last two or three years of his predecessor's term of service were rendered memorable by the idleness, dissipation, and recklessness of many of the students. Till near the close of his administration, there was but one college edifice, which contained the chapel, recitation rooms, and dormitories; and the number of students being large, many of them boarded in the city, and only came to the college to recite, and were, therefore, not under the control of the college officers.

Such were some of the circumstances under which President Wayland commenced his official duties at Brown University. He soon reduced the affairs to order; and Brown University became remarkable for the exemplary behavior of its students and its high standard of instruction. "Its departments of instruction," it is said, "were but imperfectly organized;

and, in addition to his own proper work, he taught whatever there was no one else to teach. For several years he held the reins of discipline entirely in his own hands, and, both by day and by night, watched over the students with truly parental care. He did not care especially to make the college popular, as it is called; but he labored most earnestly to render it a school of thorough discipline and of sound education."

The result of such assiduous labors and a management so skillful was most happy. The professors were roused to new exertions and more thorough instruction; the chair of moral and mental philosophy and political science, in which hitherto the works of Paley had been the only text-books, without even a *caveat* at their errors, became thenceforth the glory of the university; and his lectures and discussions on these subjects, followed in due time by his excellent text-books, not only attracted students to the university, but also exerted a powerful influence on their subsequent career. The library rose to a respectable rank, and a permanent endowment of \$25,000 was secured for it. Its increasing size required ampler accommodations; and Manning Hall, with its fine library and chapel-rooms, was erected. The new president's house and Rhode Island Hall were erected; and, on Dr. Wayland's earnest appeals, the endowment of the university was considerably increased.

Yet, with all these evidences of success, Dr.* Wayland's ideal of a university was not reached. The number of students did not increase, but actually diminished, and the annual expenses had become greater than the annual receipts. He investigated with great care the existing system of collegiate instruction in the United States; and, becoming satisfied that a radical change in some of its features was demanded, gave expression to his views in a little volume published in 1842, entitled, "Thoughts on the Present Collegiate System of the United States." The fundamental idea of this work was, that borrowing our system of collegiate education from that of Great Britain, and changing for the worse some of its best features, we had provided only the kind of education demanded by those who were intending to enter one of the learned professions, thus almost excluding the commercial, mechanical, and agricultural classes, which had done most for the organization and endowment of colleges; and that to offer to these classes the advantages of such an education as would be best adapted to their wants, the study of the classics should be made optional to those desiring an education for other than professional purposes, and that those who chose to take only a practical course should be allowed college honors expressive of their attainments.

But the corporation was averse to any change, and for some years matters remained *in statu quo*. In 1849, despairing of any decided improvement while the existing system was retained, Dr. Wayland resigned

* He received the degree of D. D. from Union College in 1827, and from Harvard University in 1829. The latter institution conferred on him the degree of LL. D. in 1852.

the presidency. The corporation, unwilling to release him, asked if he could not be prevailed on to remain in office. In reply, he stated freely the reasons of his resignation, and suggested such changes as he believed essential for the largest usefulness of the university. The board thereupon appointed a committee, of which the president was chairman, to propose any changes which might be thought needful in the system of education in the university. The report of this committee, which embodied and developed with greater fullness, though with some modifications, the views first set forth in the little work already named, was presented to the corporation in March, 1850. It proposed the organization of fifteen courses of instruction, varying in length from one term to two years. The selection of courses should be optional with the student. No student was to be admitted as a candidate for a degree, unless he had honorably sustained his examination in such studies as might be ordained by the corporation, but there was no obligation to proceed to a degree.

This system was, on the whole, a great advance in collegiate education. Nevertheless, it was not sufficiently radical. The college degree was still controlled by the corporation, and was only bestowed upon the proficient in the courses which most nearly corresponded to the old college course; and thus one inducement to a high degree of proficiency in those studies best adapted to the needs of the non-professional classes was taken away. But the experiment was tried, and proved reasonably successful. An endowment fund of \$125,000 was raised by subscription in four months, and the university commenced the year 1850-1 under the new system. During the second term of that year the number of students increased to 195, and from that time to the date of Dr. Wayland's resignation the average was 249.

On the 21st of August, 1855, his resignation was again sent to the corporation; this time not from any discouragement in regard to the condition of the university, for it was enjoying a higher degree of prosperity than at any former period, but from the state of his health. It was accepted with regret, and only from the conviction that it was indispensable to the preservation of his life.

During the whole of this period of almost thirty years he had toiled as few scholars have been able to do. Seeking and obtaining physical vigor by the cultivation of a large garden, he devoted the best hours of every day to close and assiduous intellectual labor. His wonderful activity in his duties as the head of the university were but a part of his labors. He was accustomed for many years to preach to the students every Sabbath; and his sermons, though not marked by the graces of oratory in their delivery, were replete with sound and vigorous thought. For two or three years he preached with great acceptance in the First Baptist Church in Providence.

But his great work, so far as his relations to education were concerned, were his text-books. For eight years after he entered upon the presidency,

he taught Moral Philosophy by lectures and discussions. Having, by this long course of study, settled fully the great principles of the science, he gave his "*Elements of Moral Science*" to the public in 1835, and for thirty years it has continued to be a standard work. The last labor of its lamented author was the revision of the final proofs of a new edition, in which, without modifying any of the postulates he had laid down thirty years before, he had changed and added many illustrations, and made the work more worthy of the welcome it has received in this country and in Europe.

In 1837 his "*Elements of Political Economy*" was published, and though meeting with less universal success than his preceding work, as was to be expected from the diversity of views on the subject, and its connection with partisan warfare, it has enjoyed a high degree of popularity. It is marked by the same clearness and precision of thought characteristic of his Moral Science. His "*Elements of Intellectual Philosophy*," though its substance had been given to many successive classes in the lecture-room, was not published till 1854. Here he was treading upon difficult ground, and, amid conflicting systems, could hardly hope to satisfy all. His aim was to give a clear and impartial as well as comprehensive view of the Elements of Metaphysics, and he was remarkably successful. Of his other works, which are numerous and indicate the versatility as well as the high order of his intellectual powers, this is not the place to speak, as they were not devoted to educational topics.

But his labors in the cause of education were not confined to his own university, they were coextensive with the limits of the world. In his own State, the efforts for educational reform in the public schools found in him a zealous and efficient leader. In the founding of colleges and theological seminaries, in the promotion of a higher and more truly liberal education among clergymen, and in the establishment of training-schools in the mission stations in foreign lands, he was always an efficient helper.

The affection and esteem in which he was held by the people of the gallant little State of which for thirty-eight years he had been a resident, were high evidence of his moral worth. Of all her citizens, there was none whom Rhode Island more delighted to honor, none who would have been more heartily welcome to any gifts she had to bestow. More than once he was urged to allow himself to be nominated for United States Senator; and had he consented he would have been elected by acclamation. Such honors as he would accept, the State heaped upon him. He was the chosen counselor in all her educational matters; director and president, if he would serve, in her hospitals, asylums for the insane, and her reformatories; an inspector of her prisons, in which he regularly taught a Bible-class of prisoners, and often preached; president of the Society for Aiding the Poor, and an officer in nearly every social charity of the city, and the counselor and friend of every one who went to him in perplexity and anxiety.

His death was comparatively sudden and unexpected. He had overtasked himself in the final revision of his "Elements of Moral Science," while suffering from a heavy cold: on the 26th of September, 1865, he was smitten with paralysis, and survived four days, without return of consciousness.

MARKING AND AVERAGES.

THE prevailing system of marking daily recitations, adopted in all our institutions of learning, though conducive to the highest good, is attended with great labor, and much that is useless. Under the college and public-school system of this country it is the only method by which trustees, committees, and parents can know the real and comparative standard of the scholar. By it the spirit of honorable emulation can alone be secured, and it is the only true standard of promotion in the class, or to higher classes and schools.

Having governed a school of one hundred pupils for some time by this instrumentality alone, I have sought to make it as thorough as possible, and at the same time to rid myself of all unnecessary work. I pass over the many methods of recording the value of the daily recitation, for in this the teacher seldom finds difficulty. There are scores of pupils who will rule his book, date it, record the names of the classes, and be glad of the opportunity. It is easy to sit in the presence of his class, and in the book thus prepared, record the pupil's mark as he recites.

But the labor is at the end of the month or term, when he is compelled to make out his summary for the inspection of the committee or the parents. Beginning with the reading-class, he must add a column of twenty numbers, more or less, and divide each sum by the whole number of recitations. Thus class after class must go through the same operation. The term closes on Wednesday, and he must have his report ready to read on Friday afternoon. He wishes to be faithful, for he who seeks to adopt this marking system, and is not as true as a banker, secures the contempt of his pupils, and fails. He must consequently spend sleepless nights over this averaging. This leaves him weary for the beginning of the next month, when he most needs his concentrated energy, to give his pupils a first-rate start.

READING.

Oct.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Average
J. Roe.	7	9	6	8	7	a	9	8	6	7	8	8	a	5	9	8	7	x	9	a							6.55
No. 2.	8	4	8	10	13	23	24	26	30	33	35	37	47	52	53	55	56	—	59	69							6.55

By examining the above table, every teacher will recognize a familiar

face. There is J. Roe's account with the reading-class for the month of October.

The month closes, and J. Roe retires to the playground. Pedagogue's work is not yet done. He only dismisses the aforesaid to resume his task thus : seven and nine are sixteen, and six are twenty-two, and eight are thirty, and seven are thirty-seven, etc., finding the sum of all the figures to be one hundred and thirty-one, which divided by twenty, gives the average six and fifty-five one-hundredths. In a school of thirty classes, and more than thirty pupils in each class, there are nine hundred of these difficult problems, a task which can not be performed in a shorter time than seven or eight hours. After all this, these averages must be recorded in a journal and on the reports. Let us try and save the above eight hours. Look now at J. Roe's account, No. 2. The maximum of merit, as before, is ten ; the minimum is zero (0). If he gets ten for twenty days, they will amount to two hundred. But the first day he gets three off ; mark it down. The next day he is to get nine ; mark one more off and make it four. The next day he is to get six ; and it is just as easy to take four more off, and write eight, as to put down six. So we mark for the month. On the eighth day he is absent, and gets 0, therefore we count the whole ten off. Likewise we count ten off for the seventeenth and twenty-sixth. At the end of the month we find his offs are sixty-nine. The half of sixty-nine, at a glance, is thirty-four and five-tenths, which, subtracted from one hundred, gives six, five, five, or six and fifty-five hundredths by reducing the hundred to ten, the maximum of merit. Or thus we arrive at the same conclusion. Sixty-nine from two hundred gives one hundred and thirty-one as before, which, divided by twenty, gives six and fifty-five hundredths. This works equally well for any factor or multiple of the maximum. If now there were eight recitations a month, subtract the offs in the last column from eighty, and divide by eight, and so for any other number.

Another plan of averaging is to add the real marks, from day to day, and divide the last number by the number of recitations. The objection to this is, that in every case the numbers would be very high, at last containing three figures. In the case of perfection, no mark need be made at all, if we count the offs ; while, if we add the real mark, it would after the tenth day occupy three figures each time. The offs need never occupy more than two figures, for in case of absences the ciphers can be marked instead of *a* for absences, and added on at the end of the month by glancing from the name to the right. And if a pupil misses a lesson every day, or get below five, he should be suspended from the school. If, now, J. Roe come excused for his absence, he may be allowed during the month to make up the lesson before he recites with the class, and he may be settled with in the column of the last day of his absence.

There may be queries suggested by those who read this. The writer will be happy to answer them in future numbers of the MONTHLY.

AMERICAN EDUCATIONAL MONTHLY.

FEBRUARY, 1866.

THE NEW EDUCATIONAL CAMPAIGN.

THE departments are being well organized and officered. The commissariat was never before so rich in material for illustration, both graphic and pictorial. The parade drills of teachers' institutes evince everywhere the most praiseworthy discipline ; those grand reviews, the Conventions, are the pride of the army, and the delight of all spectators ; and that signal-corps, the educational press, is repeating all along the lines :

" We'll flag by day, and fire by night,
To lead the way, and guide the fight."

All right—all sure—all onward ! only let not the rank and file become demoralized. "Heroism is uncompromised duty." It is the hardest thing in life to be faithful in little things, and in a low place. But upon just such faithfulness depends the issue of the war against ignorance, stupidity, and superstition. It is not enough to show our colors, and handle our arms, and polish our equipments. *We must fight !*

Not long since, the highest arithmetic class in a fashionable school was assigned to a new teacher. The class was beginning Evolution. A patient explanation by the teacher was rewarded by the languid assertion, "I don't understand it at all." This encouraging remark was repeated day after day, and not by one only, till the teacher determined, considering what was the subject in hand, to go to the *root* of the matter, and discover where and what was the *radical* defect. She said : "Young ladies, I have a square room. I do not know its size ; but I am told that I must get nine yards of carpeting, a yard wide, for it. What must be the length of the room?" The young ladies used their slates and pencils, turned the subject over in their minds, and one after another raised their hands. Six answers were given in the following order, by different members of the class : "Three feet ; three yards ; two and a quarter yards ; four and a half yards ; nine yards ; and eighty-one yards." Those young ladies live in carpeted houses, and somebody has to pay their bills.

Great is arithmetic, and greater is its profit! In A. T. Stewart's retail house, there is a small counter, where young boys sell common materials for dress linings, etc. The other day, one of these boys was measuring and marking remnants of silesia and hollands, when his next neighbor exclaimed, putting his finger on a label: " $\frac{7}{16}$." "What do you mean? No woman will know what that is." Presently, a lady appeared, and spying the disputed fraction, asked hesitatingly: "That is nearly a yard, isn't it?" This lady's question was a solitary fact. The boy's statement was the result of an inductive process, having for its basis a class of facts.

How is it at the South? How much studying has been done there during the last five years? The old systems of instruction in boarding-schools and by family governess have been suspended, and in many sections it will not be easy to supply the means for restoring them. Now is the time to establish a school in every neighborhood. The field for this educational campaign widens in every direction, North as well as South—East as well as West. The rubbish of prejudice must be cleared away. New systems must be organized; new schools must be established, and improvements on old modes of instruction must be devised.

USE THE BLACKBOARD.

BLACKBOARDS are fashionable. Every one praises them, and every school has them; but how often do they not serve chiefly to darken the walls, to cast a gloom upon the school, instead of light upon the understanding of the scholars. No teacher now dares question their utility; but how many teachers prove their utility by daily use? To how many are they a constant necessity, not an occasional convenience? What a contrast there is between the master ensconced behind an open book, prosing over the words of another, and the live teacher, full of his subject, relying upon his own resources, and rousing his class by the power of blackboard illustration! With the one is dull monotony; with the other, the earnest face—the skillful hand—the hasty diagram in isometrical perspective—the suggestive outline which the mind must fill up—the witty invention which leaves no grade of ability beyond its reach.

Every teacher ought to be compelled to teach something without a textbook, for his own sake—for the sake of his own habits of instruction. Nothing else will keep him from becoming a passive hearer of recitations—the very opposite of the earnest teacher.

SCRATCHES AND DAUBS.

KEEP the first daub and the first scratch from these walls, and they will always be unblemished!" So said a teacher when his pupils assembled in a new school-room. They seemed to think that some mysterious principle had been enunciated; and though we were unable to perceive wonderful wisdom in the assertion, being unable to imagine how the second blemish could appear before the first, yet we forgave the flatness of the truism in consideration of the shrewdness that prompted it. For the moral influences resulting from the appearance of the school-room are usually not fully estimated. The truth is, that all things by which we are surrounded have a definite, unalterable character, a capability of developing those feelings of the human heart which in reality are forming and exercising our tastes. There are no objects in nature or in art by which we are not thus influenced. The walls of our sitting-rooms, the curtains at our windows, the trees in our door-yards, the snow upon our pavements, all these affect, ay, form our tastes and predilections, as constantly, as inevitably as do books, papers, and paintings. And we are also incessantly exercising our taste with reference to these various objects. We are always making comparisons, observing contrasts, exploring defects, or contemplating the pleasing features of all objects by which we are surrounded. No object is so vast, no object so insignificant as to be unable thus to influence us. The household goods which promote our comfort, the wares of trade and commerce that administer to our luxury or gratify our pride, the distant line of hills, the neighboring street, the faces of familiar friends, or the countenances of those whom we meet once never to see again, all these are constantly forming and exercising, and by exercising are constantly fixing our partialities and antipathies.

These facts—which are almost as obvious as the truism we cited—become important when we consider how peculiarly they apply to the impressionable minds of children. That was sound doctrine which Professor North inculcated at the last meeting of the New York State Teachers' Association: "The moral and æsthetic influences of a neat and cheerful school-house are well worth securing. Ideas are like chameleons: they imbibe and retain the color of the objects they are associated with. In some school-houses, learning is a dingy, musty, loathsome commodity: Grammar suggests headache, drowsiness, and tortured spines; Arithmetic is a counting of long dreary hours of bondage to a hated task; and Geography recalls a low ceiling, indecent with charcoal scrawls. In other

school-rooms, like those which adorn many of our cities, knowledge is radiant with delightful hues—'a thing of beauty and a joy forever.' When the pursuit of learning is connected with pleasant apartments and smiling faces, it is elevated to a delight: it is degraded to a drudgery, with surroundings that create discomfort."

Let teachers consider not only that the "first scratch" on the school-room walls will be followed by scratches *ad libitum*,—the "first daub" by daubs *ad nauseam*,—but that *any* blemish in the school-house or its furniture must tend to vitiate the tastes and mar the moral nature of all beneath its roof.

MAPS WANTED.

AS long ago as the time of Solomon, of the making of many books there was no end; and in these days of Coltons and Lloyds there is no end to the making of maps. Still, our schools and the public are to a great extent unsupplied with these homely but effective teachers, and we fear that the want will long be experienced. One of the religious journals, in its desire for some means of delineating the moral changes in heathen lands, makes some statements respecting the utility of maps, which apply with great force to the necessities engendered by changes rapidly recurring on our own soil. Our country is so rapidly becoming settled—explorations are extending so widely, and new territories and states appear so frequently, that the best maps soon become unreliable. We need, therefore, a good convenient atlas, which can be issued in a new corrected edition every two or three years, at a cost which would enable all to be provided with each revised edition. A quarter of a century has elapsed since the appearance of Morse's Geography, consisting of numerous maps, with letter-press on the following page. This, we are told, gave rise to the present custom of putting the maps and the reading-matter of school geographies into the same volume. "Morse's book was remarkable for its excellence and cheapness. By a process of his own invention, called cerography, he was enabled to make very distinct and legible maps, and yet the whole book was sold for half a dollar." As nothing has been heard concerning the cerographic process for several years, it is inferred that difficulties have arisen in the art, so serious as to forbid its further use. Some similar mode of map-making is now especially needed—some mode which will provide, not for the professional and learned man merely, but for the masses of the people and the students of our schools.

EDITORIAL CORRESPONDENCE.

GOTHA, JANUARY 5, 1866.

Merchants' Training School—The Great Geographical Publishing House—Dr. Petermann.

I HAVE taken the time to visit the Merchants' Training School of Gotha, the directors of which, with one of the leading teachers, are warm personal friends of my own. Of this school I can speak in terms of high praise, except of the class principle which underlies it. It is the school of a guild, a class, a caste; and as such it only plays its part in perpetuating the hateful caste spirit which prevails on the Continent, and upon which I took occasion to speak freely in a former letter. The son of a merchant is to be a merchant; whatever be his natural tastes or aptitudes, he goes through the course of preparatory training, and adopts his father's vocation. I need not say what a waste of talent this occasions, when considered in the aggregate; how many men, who would have adorned the calling for which nature intended them, are kept in an employment for which they have no inherent fitness; but any one who thinks of the matter for a single instant will see that, in a country where the world lies open to every one, there is a far greater economy of talent.

In this tradesmen's school of Gotha the method of giving instruction without text-books is in common vogue, as in the school of Halle, about which I wrote you a few months ago. Such studies as geography, history, and the sciences are not prosecuted with the use of text-books; but by means of familiar lectures, the teacher asking questions in each lesson on what was spoken of in the preceding. I should think that this plan had its advantages; but it seems to me altogether better to base the lecture on what has been regularly learned from a book. I should fear that the discipline of education would be lost under the lecturing system; that the pupil, being always a recipient of matter fully prepared, and only needing to be heard and not to be carefully wrought over with labor and patience, would fall into those slothful literary habits which are only too frequently met in this easy-going age.

I do not remember being struck with any thing new in this tradesmen's school

which would be worth repeating. The visits made there were satisfactory; but they left on my own mind the impression that, in what concerns the higher branches of a practical education, this old country of Germany can learn more of the young land across the seas than it can impart.

It can hardly be foreign to the objects which the AMERICAN EDUCATIONAL MONTHLY is intended to further, if I speak in this letter of the great geographical publishing house in Gotha, the largest of the kind in the world. It was founded, more than half a century ago, by Justus Perthes; and is still known by his name, although he died years ago. The present heads of the house are Messrs. Besser and Müller, men of truly noble character, enterprising, careful, and public-spirited. The director of geographical affairs is Dr. Petermann, who is so well known in England and America as one of the foremost living geographers, that it may interest some of my readers if I speak of his personal appearance. He is about thirty-six or thirty-eight years of age; is short, but neither stout nor spare; has a quick and decided manner, but without a trace of abruptness or brusqueness; he is generally earnest in his way of talking, entering at once into the heart of what he is saying, but yet you leave him always with the impression that he is what we call a very "pleasant" man. Notwithstanding his great reputation and his distinguished attainments, he is as approachable as a child; he does not impress one with any awe-inspiring and overshadowing sense whatever, yet he is invariably dignified. While he maintains in his whole bearing the air of calmness, he yet has an art, almost unintelligible to me, of infusing the greatest enthusiasm into all who come within the circle of his influence. Dr. Petermann has lived a long time in England, and has acquired our difficult language so as to speak it fluently and with great correctness. Not knowing his earlier character, I could not venture to assert that he acquired in England certain qualities which do not seem to be at all German, among which are promptness, executive readiness, and first-rate business efficiency. These qualities are sometimes seen in Germany, but they are exceptional, and al-

ways excite as much astonishment as admiration. But Dr. Petermann unites, in a manner which seems wonderful, all that thoroughness, that patient working up of details, that largeness of view over a whole field, and that power of prolonged labor in a single direction, which are distinctly German, with a facility of execution, a readiness to superintend all kinds of labor at once, and in one word those business faculties which are more often found in England and in America than in Europe.

The two gentlemen at the head of the house are less known to the great world, it may be, but are most estimable, cultivated, philanthropic men. Their treatment of all with whom they have to do is uniformly considerate, and the whole establishment is actuated by a spirit of kindness and confidence, which is kindled by the gentleness and the noble qualities of the heads of the house. Mr. Besser is the son of the Besser who for so long a time was the partner of Frederick Perthes; and those who have read the deeply interesting biography of the latter, know the sterling qualities of the elder Besser. Dr. Petermann told me an incident which illustrates the well-known business character of the house. When Dr. Barth returned from Africa, Mr. William Perthes, then at the head of the business, proposed to publish his voluminous travels. Friends tried to dissuade him, telling him that such a work must result in loss. His answer was, "Though I should lose 1,200 thalers on the book, I shall publish it for the honor of Germany." Such to the present day has been the spirit of this house; and when the cities of Hamburg and Bremen gave two thousand thalers each to the late north pole reconnoitring expedition, the house of Justus Perthes alone gave a thousand.

When I came to this place, I called first upon the gentlemen who are the business heads of the house, told them of my present undertaking in connection with the life and works of Prof. Carl Ritter, and informed them that I had visited Gotha as a great geographical center, thinking that the place would afford advantageous helps in the prosecution of my labors. They at once gave me a table in the library of the institute, allowed me perfect license in the use of the books, charts, and all that was there; and, without my knowledge, secured for me the use of the great ducal library of Gotha, with its 150,000 volumes.

Dr. Petermann, in the same liberal spirit, opened to me the riches of his own private collection. All this manifested a spirit which is only too seldom met in this mercantile, driving, selfish world.

For more than two generations, this geographical institute has been rising to its present position. It has always been managed with skill, and perhaps never more so than at the present time. Thousands upon thousands of dollars have been spent upon the preparation of original maps, and while other publishers have freely copied from them, and made fortunes out of stolen goods, the house of Justus Perthes has gone on its quiet way, crowned with prosperity and honor.

W. L. G.

OBJECT-LESSONS.

ELIZABETH, N. J., Jan. 10, 1866.

MR. EDITOR—I was particularly pleased with the article entitled "A Few Problems Illustrated, for Pupils." Such "Object-Lessons" should gain converts to the system, and show that there is really some merit in teaching beyond the old way of confining the attention of the pupil to the spelling-book and multiplication-table.

I submit an outline of lessons given in the "Union School," Elizabeth, N. J.

THE FINGER-NAILS.

1. Names of the parts of the nail: body, root, lunula, and free border.
2. Description of the parts.
 - a. The body is the exposed part of the nail.
 - b. The root is the part covered by the flesh.
 - c. The lunula is the whitish spot near the root of the nail.
 - d. The free border is the part not attached to the flesh, which should be kept trimmed and clean.
3. The nails are horny appendages of the flesh, and correspond with the claws, hoofs, and horns of other animals.
4. The nails are thin, flexible, translucent plates, resting on a depressed surface of the dermis, called the matrix.
5. The translucency of the nail permits the redness of the matrix to be seen, which color is due to the numerous blood-vessels.
6. There are fewer blood-vessels under the lunula, which gives rise to the whitish spot.

Method of Presenting the Subject.

All the pupils from seven years of age to eighteen were assembled in one room, and divided into three classes or grades; the youngest forming the first class, the intermediate the second, and the oldest the third. The members of the third grade were required to remain attentive observers while the first and second classes were being exercised successively, and to be prepared at the close of the lesson to give a summary of the matter, and to write a detailed account of the whole exercise.

The second and third grades took notes while the youngest class were employed in observing and learning the names of the parts of the nail. This required fifteen minutes, and this class passed from the room.

The little ones were asked to think of as many different kinds of nails as they could. As soon as a child thought of one the hand was raised, and the example called for. This gave some mental exercise, and all were encouraged to ask carpenters and others for information upon the subject. At length a little fellow mentioned finger-nails. Examples in addition were called for, as how many nails on one hand—two, three, etc.

The children were told that they were to have a lesson about the finger-nails. They were asked why the nail did not fall off. The answer, in substance, was given, that a part of it extends under the flesh, when they were told that part was called the *root*. The word being "printed" upon the board, it was spelled several times. They were informed, also, that all the part which they could see was called the *body*. All were requested to look at the body, and see if there was any part that they would like to know the name of. Soon the part not attached to the flesh was observed, and the name *free border* given. The whitish spot at the base of the nail was noticed, and several of the class called upon to draw something of the same shape on the board. Very soon all agreed that it looked as the moon did sometimes. They were told that the moon was often called *luna*, and the whitish spot resembling it in shape was called *lunula*. The names were "printed" upon the board, and the class were exercised in spelling the words, pointing to the parts, and naming them, until they were familiar to the majority of the class. The children were dismissed from the room, after being impressed with

the idea that all neat persons keep the free border nicely trimmed and clean.

The second class were called upon to name the parts, and questioned in such a manner as to bring out the matter marked *a*, *b*, *c*, and *d*, under 2.

The class were allowed to do most of the work. After an idea was gained, assistance was rendered, if necessary, in the use of suitable language. Time and space will not permit us to give the method in detail. The sentences were written and repeated in a conversational style until committed to memory. The following day the class reproduced the lesson from memory upon slates.

In giving these lessons the teacher had a special design: first, to exercise the observing powers; second, to cultivate the power of expression, to strengthen the memory, and incidentally to make spelling, reading, and grammar lessons.

The matter marked 3, 4, 5, 6 was given to the third class, comprising the oldest pupils. Some of the matter was given as information, and some drawn from the pupils by questioning. The reasoning powers were brought into exercise about the redness under the nail, and the whitish part called the *lunula*. This class was required to write a detailed account of the three lessons.

An exercise, to prove successful, should be clearly defined in the teacher's mind before coming to the class. She should know just what ideas she wishes to bring out, and how she expects to develop them, else there will be waste of time and little accomplished. c.

"THE DISHONESTY OF TEACHERS."

Boston, January 6, 1866.

MR. EDITOR—It may be true that we, as teachers, are a little too careless about obligations; but I see in this another carelessness more fundamental. Teachers have been systematically defrauded. They do more work for less pay than any other men of equal intelligence; yet, in spite of all this, I do not believe there is a more conscientious, honestly disposed class. That they have tastes beyond their abilities—that they sometimes exceed their income, and are unable to meet their engagements, is rather the fault of community than that of the teacher.

What is to be done? If I receive the son of the expressman as a pupil, at five dollars a month, and he moves a few goods for me twenty rods, at an expense of two hours' time, and charges five dollars for that, who is to blame that I must direct the boy's education a month for what the father can do in two hours? I can not raise the tuition beyond a given point, for although I may be a superior teacher, few people know the difference between a fool and a wise man.

Private schools are jealous of each other's success. They ought to unite in securing a proper remuneration. But here comes in another difficulty, public schools are free, and the directors of them—well, no matter; but in their schools men are prized for heaven only knows what qualifications. I do not mean to deny my brethren eminent virtues and qualifications, but only say, that they secure their situations without much reference to these virtues.

The result is, that between the indifference of parents, and the stupidity of school officials, the poor teacher may be thankful if he is permitted to live.

Yet, I can not leave this subject as though reform were hopeless. I see no reason why the grocers of a large town

should consent so harmoniously in raising the prices of all eatables; why tradesmen of every kind, and manufacturers, should forget their mutual jealousies in their union for an advance of prices, while the band of teachers should be a *band* only in name, and have every expense doubled and trebled without the power to act for their own interests. But an increase of salaries is not the only thing demanded. I do not even consider it the chief thing. It is vastly more important, that they should outgrow their childish isolation, and, recognizing the dignity of a common aim, should establish some just criterion of excellence; and by elevating their profession, and themselves with it, wield that influence which alone can secure their rights. Rest assured, Mr. Editor, that we, as teachers, shall be ignored, and our rights denied, until we feel enough self-respect to force the importance of our work upon all classes of community. Assured that the development of such a spirit is your real object in the articles on the "Ignorance" and the "Dishonesty" of teachers, and hoping that your readers will not be led to misunderstand your purpose and feelings by the somewhat startling captions prefixed, I add this mite as my contribution.

D. F. L.

EDUCATIONAL INTELLIGENCE.

NEW ENGLAND.—The leading New England Colleges are advancing the standard of qualifications for admission. At the first, or commencement examination of Yale College, a majority of the applicants were rejected. Out of one hundred and nineteen, only fifty-two were admitted. After a rigid examination, one hundred and six were admitted at the opening of the present term. The professional students at present number 192, being classified as follows: in theology, 24; in law, 35; in medicine, 41; in philosophy and the arts 92. There are 490 academical students, viz.: seniors, 97; juniors, 107; sophomores, 130; freshmen, 156; whole number in the college, 682.

The State of Maine has made a grant of \$10,000 to the Westbrook (Universalist) seminary, and \$10,000 has been raised by subscription. Besides this, General Hersey, of Bangor, has agreed to give \$5,000 to it, toward an additional fund of \$10,000, if other friends will give the rest, and nearly all is subscribed.

Vermont is organizing a reform school for boys not exceeding eighteen years of age.

The Vermont Agricultural College is to be incorporated with the Vermont University.

MINNESOTA.—The Normal School at Winoona is overflowing. Its accommodations are quite too limited. The number of students in attendance is 53, although it has seats for only 54. Sixteen counties are now represented in the school. The annual appropriation is \$5,000, and is perpetual. There are model classes composed of children from 5 to 12 years of age, occupying two rooms, with accommodations for 80 pupils. There are, however, 85 children in attendance. A third grade is about to be established in the basement of a neighboring church. The model classes are self-supporting, the charge for tuition being \$80 per pupil per year; and yet at this seemingly high rate the two departments are crowded. The model classes are taught by teachers

of skill and ability. These teachers are young ladies, and receive a salary each of \$700 per year. Great attention is given in the Normal School to the theory and art of teaching. Model-class exercises, in presence of the Normal School occur daily; and are subject to the close scrutiny and criticism of the members of the training-class. The model classes are made to subserve their true purpose, of *illustrating the best known methods of instruction.*

Provision has been made for three normal schools in Minnesota.

The duties of the State Superintendent are at present confided to the Secretary of State. But it is expected that the Legislature will this winter separate the two offices, and create a full department of public instruction.

MICHIGAN.—A new educational monthly, called the Michigan Teacher, has been started at Niles; William H. Payne is resident editor, and C. L. Whitney, associate. It bids fair to take high rank among the State educational journals of the country.

The University of Michigan is now the largest university in this country, containing 1,051 students, distributed as follows: medical department, 436; law, 300; literary, 265. Three new assistant professors have been appointed, one in each department. The institution is well endowed, and tuition is free.

Prof. Mayhew is now acting principal of the State Normal School, Prof. Welch having resigned on account of his health.

VIRGINIA.—The educational interests of the State, which were most signally stricken down by the war—the whole literary and educational fund, amounting to several millions, having been ingulphed in the downfall of the rebel fortunes—receive the governor's most earnest attention. He especially recommends the endowment and establishment of a polytechnic school, upon the basis of the Virginia Military Institute, which was destroyed by the war. The aim and object of this system of education is to apply the laws of science to the arts, agriculture, and manufactures—a style of education which is most needed by Virginia in her present condition, and best calculated to give speedy development to her great natural wealth.

LOUISIANA.—The Washington correspondent of the Chicago Tribune gives the following account of General Banks' plan for educating the freedmen of Louisiana: "The educational system established by General Banks, and committed to a military board of education, seems now to be in excellent hands. The board originally consisted of three persons, one of whom was soon found morally unfit for his position, and dismissed. The others continued in office until August last, but constantly lacked the confidence of all who knew them

intimately, and certainly made a wretched exhibit to their successors, so far as financial administration goes. Nevertheless, an immense work has been done, and its results already apparent are cheap at twice the total cost. Mr. Conway, on receiving control of educational affairs, appointed Captain H. R. Pease general superintendent of schools, and gave him such direct assistance, that a most gratifying improvement is already visible. Just at this point, however, the President again interfered. General Banks authorized the assessment of a special tax for the education of the colored children of Louisiana, whose ancestors for generations, both free and slave, had been heavily taxed for the education of white children,—thinking that the time for a fair turn about had fully come,—and directed the quartermaster to advance such moneys as might be needed, until the tax should be realized. Various delays postponed the collection of the tax, until an indebtedness of some \$300,000 had accumulated in favor of the Government. The process of collection had realized about one-half of this amount, when the reconstructed Louisianians made their wail at the executive mansion, and the tax collectors were instantly suspended, leaving the \$150,000 still due the Government unprovided for, and annihilating hundreds of noble schools at a blow."

CALIFORNIA.—The State Board of Examiners have finished the investigation of the papers of the applicants applying for State certificates at their late session. This board consists of the State Superintendent, chairman, and four teachers appointed by him. The members of the present board are Prof. Minns, Prof. Swezey, Mr. Marks, Prof. Knowlton, and State Superintendent Swett. The late examination was pursued entirely in writing, and contained fifteen different papers of twenty questions each, making three hundred questions for each applicant. The whole number who applied for certificates was eighty-six, most of them teachers from different parts of the State, including a dozen who applied for city certificates. Of the eighty-six who applied, fourteen withdrew for various reasons. Seventy-two completed the examination. Forty-two received each a certificate according to their accomplishments, leaving thirty-one, who applied, out in the cold; and it is said that from the looks of some of their papers and answers, they should attend school, instead of undertaking to pass themselves off as teachers. State educational diplomas were granted to all whose credits to answers on all the papers amounted to eighty per cent, and who had, in addition, taught three years, one of which had been in this State. The average percentage of the seven teachers who received State diplomas, was eighty-four; the highest was eighty-nine, and the lowest eighty.

CURRENT PUBLICATIONS.

PROFESSOR BASCOM'S late book,¹ with its very unpretending preface, and its somewhat overwrought introduction, is worthy of deliberate attention; certainly among teachers, if not among learners. Whether its philosophy proves to be exhaustive and ultimate, or whether it is the right book at the right time, or whether, indeed, it shall prove to have been really needed at all, as a text-book, are matters for later and separate inquiry.

Throughout, marks of labored and conscientious care are evident. Nothing has dropped spontaneously or unconsciously in the heat of composition. A law treatise could hardly be more unexceptionable and faultless in its technique. Besides, the professor exhibits a becoming familiarity with theoretical writers on his subject. He deals familiarly and exactly with metaphysical questions, and preserves entire consistency in developing his method and material.

His method, however, seems an unaccountable *inversion*. The first division gives the results of all rhetorical thinking, in a labored synthesis, drawn from what actually stand as the second and third divisions! This may be the order *in fact*, where the mind has worked out the result, but it by no means indicates the order the mind must follow in order to reach that result. Educationally, as it respects the learner, the first and last divisions *should change places*, leaving the pivotal second undisturbed. Practical teachers will generally accept this view, for everybody knows that the practical rhetoric, the definition, analysis, and illustrations of literary forms *must* precede the theoretical and philosophical grounds of persuasion and oratory.

The style, which maintains an imperturbable uniformity throughout, seems particularly unfortunate in its absolute subjection to the pedantry of a college class-room. The painful precision of treatment and morbid conscientiousness of statement, everywhere forbid ease and grace of movement.

The style is, literally, *dedicated*, and rattles with academic dryness, like an anatomical preparation. Turn over both mid-

dle chapters of Cousin's "True, Beautiful, and Good," and you shall find how a living, fruitful energy, even among most subtle speculations, clothes its labors in winning and appetizing forms. Why must authors touch such moving themes, as lie among the mainsprings of highest art, with cold, clayey fingers, and pens like gravers?

If the "Philosophy" is to develop stylists, after the manner of the professor, then we say away with it. We do not single out the professor for special pedantry, but we do insist that book-makers for the school and college be brought to understand that a text-book worth a name, must render difficult knowledges solvable, and approach the mind of the pupil *on his own level*.

If a teacher can not reduce the matter of his treatise to the vernacular of common thought and usage, without hazarding the value or dignity of his errand, he had better not add another to the hundreds of text-books, long since dead from pedantry and academic mannerisms. Without doubt a good rhetoric is needed, for we have none equal with the growth and necessity of our days. Theories of style, taste, language, and beauty have changed *toto calo* since Dr. Blair's day, and the whole subject remains yet open and should receive immediate and adequate treatment.

EXCEPTING perhaps Sir Roderick Murchison, there is no living man to whom geology is so deeply indebted as to Sir Charles Lyell. Nearly forty years ago, when scientific men were still fettered by the wild theories prevalent during the preceding century, he published his "Principles of Geology," in which he reduced the chaotic mass of facts then known, to a system, and placed the science on a sure basis. Soon afterward his "Elements" was issued, to supply the demand for a text-book. Although this treated the subject in a profound manner, it became exceedingly popular. Now, after remaining for ten years out of print, it again presents itself, enlarged and improved, to compete with its younger rivals.

An elementary work upon geology should

(1) PHILOSOPHY OF RHETORIC. By Professor JOHN BASCOM. Boston: Crosby & Ainsworth.

(2) ELEMENTS OF GEOLOGY: or the Ancient Changes of the Earth and its Inhabitants, as Illustrated by Geological Monuments. By Sir CHARLES LYELL, F. R. S. Sixth Edition. New York: D. Appleton & Co. 8vo, pp. 303. \$4.50.

differ exceedingly from the deluge of books now appropriating the name. It is folly to suppose that before one can study a science thoroughly, his mind must be filled with the pointless gossip so abundant in text-books. We study not merely to gain information, but also to discipline the mind. Dry narrations of effects give the student a disjointed skeleton of the subject, and, by converting the study into rote, injure the mind. Mind, like body, must have exercise and nourishing food, or it will be enfeebled. We require, therefore, in an elementary work a careful discussion of causes and effects, so presented that the student must exercise thought in preparing the lesson. Important matters should not be omitted for the sake of subjects which are merely entertaining.

Such a work is Mr. Lyell's "Elements of Geology." It consists of no naked narration; it is not a mere list of disconnected facts. It is a treatise. It gives causes and effects, explaining and investigating their relations; it discusses facts and theories; regarding physical laws as secondary to phenomena, its author generally discards hypotheses as such, and consequently treats the subject in an impartial and thorough manner; so that the student who uses it gains a far from superficial knowledge of the science as a whole. It is what we think a text-book should be, concise, interesting, and comprehensive.

With many theories offered in the work we can not agree. Especially are we dissatisfied with Mr. Lyell's argument respecting the antiquity of man. It is almost entirely based upon the discovery of flint implements in certain caverns and in diluvium at Abbeville, Amiens, and other places, where they are accompanied by bones of extinct mammalia. We concede that, beyond all cavil, the flints are of human origin, and that they do accompany fossils of the post-pliocene period. But mere juxtaposition is no proof of contemporaneity. In Alabama, on the plains of Nebraska, and on the pampas of Buenos Ayres, we find the remains of vast mammalia referred to the post-pliocene period; but with them are also found the bones of vast herds of cattle, which were destroyed but a few years ago. Even the antiquity of the fossil mammalia is doubtful. A few hundred years hence, the bison will be extinct on this continent. A new race may

people the land, and the buffalo skeletons may be referred to an ancient period. We know that the lion has become extinct in Greece during the historical period. With these instances before us, why need we urge great antiquity to such mammalia as became extinct before the historical period, and at a recent geological period?

Again, the diluvium in which many of these flints are found, was regarded as of ancient origin by Buffon and others only because it contained no human relics. Now that such relics are found, and as the formation gives abundant evidence of great disturbance, we are as justified in assigning a modern origin to the formation as if we assigned great antiquity to our race. In his reference to Brixam Cave, Sir Chas. Lyell is unfortunate. Dr. Falconer has denied finding flint implements under the head of a *Rhinoceros Hemistoechus* in that cavern. With this exception, which probably resulted from oversight, the argument is fairly conducted, and, as it gives a clear statement of the author's views, adds considerably to the value of the work. We perceive that Mr. Lyell now inclines strongly toward Mr. Darwin's theory of natural selection.

This work is especially full upon paleontology and description of the various formations, nearly five hundred pages being thus devoted. As it relates particularly to the geological history of Europe, it will prove a necessary companion to Mr. Dana's noble manual, which gives the American history. Among other important additions, we note a description of the *Eozoon Canadense*, discovered in 1859 by Sir William Logan, in the Laurentian rocks of Canada, and since ascertained to be a Rhizopod. An excellent paper concerning this fossil, supposed to be the oldest created thing, is contained in Silliman's Journal for November last. The chapter on the Stone and Bronze ages is full of marrow, and can not fail to interest archæologists. The chapters on the Glacial epoch are especially full.

We find many new illustrations, but fail to see the frontispiece referred to by the author. Perhaps the American publishers thought it an unnecessary ornament. The book is well printed, though, like most American books, it is disfigured by numerous typographical errors, which reflect little credit upon proof-readers.

SEASIDE STUDIES³ is a description of the radiate animals found in Massachusetts Bay. Though thus limited in its range, it is a thorough little work upon the whole class. The sections on embryology are pithy and entertaining. The style is everywhere pleasing; and some portions, such as that upon the "Mode of catching jelly-fishes," are especially fine. The authors have followed Professor Agassiz' method of nomenclature, and have made this subject more interesting than we had thought possible. It would have been simplified, had the derivation and signification of the specific names been given. Possibly the omission was intentional, that the reader might be incited to inquiry; yet it detracts from the convenience of the book, for some who will read it are not acquainted with Latin or Greek. It is a remarkably good specimen of book-making, creditable alike to the authors and publishers. The illustrations, which are very numerous, are taken principally from life, exhibiting the animals in natural positions, and are good. The book is printed upon tinted paper, and is substantially bound. We sincerely hope that Mrs. Agassiz and her son will not stop at this point, but give us like descriptive works upon the other classes of marine animals.

The series of German works so often adverted to in these pages has been augmented by a novel⁴ by Paul Heyse, and a small volume⁵ which will be of interest to students of the German language. A more important addition is Schiller's tragedy,⁶ "Maria Stuart," comprising the original text, with an introduction and notes, for translation into English. History records the names of few persons, who, possessing many amiable qualities and actuated by no malevolent impulses, have wrought more

misery than was effected by the erring and unfortunate queen of Scots. Even at this day, there are conflicting opinions as to her principles and conduct; and the student who would either learn her history or study her character, will find little in Schiller's play by which to approximate truth. For the purpose of adapting her history to his literary requirements, he modifies facts, creates new personages, and to some of his characters attributes principles and actions wholly unwarranted by any chronicles known to historians. Yet with all these features, and with all the palpable neglect of historical background which might have heightened the effect of the play, it is justly regarded as a creation of genius, and holds high rank among the masterpieces of German literature, as a painting of an eminently tragic situation, and of a signal triumph of mind over matter, of the human will over brute force and violence.

A NEW edition of a unique work⁷ has appeared, which will be of no little interest to all who rightly estimate the value of music in the school-room. It is a collection of hymns made especially for schools, embracing a wide range of themes and metres, with appropriate scriptural quotations, and a collection of effective standard tunes. In literary merit, poetic excellence, and practical adaptability, it well sustains the high reputation which the author has achieved in educational and classical literature.

"BRIGHT MEMORIES"⁸ is the title of a little book, designed to exhibit to the young the graces, virtues, and sufferings of one who had become endeared to numerous friends, and was, through her poetical effusions, becoming known in literary circles. The beauty of the character depicted, and the tenderness with which a sister has here performed her work of duty and affection, will cause feelings of sadness and pleasure to all who read the book.

(3) SEASIDE STUDIES IN NATURAL HISTORY. By ELIZABETH C. AGASSIZ and ALEXANDER AGASSIZ. Marine Animals of Massachusetts Bay. Radiata. Boston: Ticknor & Fields. 8vo, pp. 155. \$3.00.

(4) DIE KINSMÄNNER. Von PAUL HEYSE. 12mo, pp. 44. 40 cents.

(5) WAS SICH DER WALD ERZEHLT. Ein Märchenbuch von GUSTAV ED PUTLITZ. Mit einem Titelbilde von GUSTAVE DORÉ. 12mo, pp. 64. 50 cents.

(6) MARIA STUART. Ein Trauerspiel von FRIEDRICH VON SCHILLER. Notes, etc., by Dr. Adolphus Bernays. 12mo, pp. 174. 50 cents. Boston: De Vries, Harris & Co.

(7) HYMNS FOR SCHOOLS, with appropriate Selections from Scripture, and Tunes suited to the Metres of the Hymns. By CHARLES D. CLEVELAND. New York: Schermerhorn, Bancroft & Co. 18mo, durable cloth, leather back; pp. 276. 75 cents.

(8) BRIGHT MEMORIES. In MEMORIES AMELIA HULSE ROBERTS. By Mrs. GEORGE A. HULSE McLEOD, author of Sunbeams and Shadows, Sea-Drifts, etc. New York: John W. Brown, printer. 18mo, pp. 79.

SCIENCE AND THE ARTS.

—A German professor has discovered the means, by the aid of chemistry, of recognizing the presence of cotton in linen fabrics. He takes a piece of cloth, about two inches by three-fourths of an inch, and after having unraveled both weft and warp, plunges it into an alcoholic solution of aniline and fuchsine. The superfluous coloring matter is removed by water. If, while still wet, it be placed in a saucer containing ammonia, the cotton fibres will immediately become discolored, while those of linen will preserve a fine red color.

—To aid bees in the formation of their comb, narrow sheets of wax are now imprinted by machinery, so as to exactly represent the dividing wall of comb between the cells.

—Wood shavings are extensively used for the manufacture of paper. To ascertain whether a given kind of paper contains wood, pour a few drops of aniline into a test-tube, add a few drops of diluted sulphuric acid, and apply heat by means of a spirit-lamp. This done, a strip of the paper to be tested is dipped into the liquid, which is a sulphate of aniline, and immediately an orange tint will be perceived, which becomes intense in proportion to the wood contained in the paper.

—M. Javal, a French savant, recently reported a method of curing strabismus, or squinting, by the use of the stereoscope. Though entirely novel, the suggestion commends itself as of high probability, and as belonging to the homeopathic, or *similia similibus*, principle of healing. Few have failed to notice the painful effect upon weak eyes—producing for the time almost an artificial strabismus—of a continuous use of the stereoscope.

—A recent post-mortem examination proved that death had been caused by apoplexy, induced by the presence of a parasite called cysticercous in the left ventricle of the brain.

—Amongst the patents lately taken out in France, are the following: A hygienic alphabet, in gingerbread; a method of making head-dresses, caps, and pocket-handkerchiefs in paper; a mechanical fan, opening and shutting instantaneously; a machine for cutting stone by means of a system of points, reproducing minutely the relief required; an apparatus for making deaf people hear; and no fewer than ten patents for stopping railway trains.

—Hail-storms are either regular or irregular. The former return periodically; the others, the most disastrous, make their appearance at long intervals; visit indiscriminately the places most, as well as least, subject to hail, and follow valleys and

water-courses, while they avoid forests. The influence of forests may be attributed to two causes: 1. They are an obstacle to the motion of the masses of air which carry heavy clouds; hence, on the borders of forests, eddies are formed in the atmosphere, and both the air and clouds find an easy issue along those same borders. The consequence is, that the velocity of the aerial masses, and clouds with which they are charged, is checked, and they therefore disburden themselves of their hail before they arrive at the forest. 2. Admitting that electricity exercises some action in the formation of hail, the trees may be considered as conductors, depriving the clouds of their electricity. They would thus cease to be "storm clouds," and no hail could be formed in them.

—A new use for petroleum has been devised. The invention consists of a simple process of forming the debris of dust or coal-mines and yards, with petroleum, into lumps or blocked masses, which ignite readily without use of soft coals or kindlings, last longer, and give out a more intense heat than ordinary anthracite, and cost about one-half as much.

—A French savant says he has discovered a complete substitute for rags in the manufacture of paper. The root of the lucern-plant, he observes, when dried and beaten, shows thousands of very white fibres, which form an excellent paste for paper-makers. The three kinds of lucern—the *medicago media*, the *medicago falcata*, and the *medicago maculata*—produce equally good roots for paper-makers' use. The roots are to be first pressed between two rollers to open them, and, when sufficiently crushed and dried, they are left to soak in running water for fifteen days or three weeks. The pulp, besides the thread for paper, produces salt of soda, and a coloring matter, called by the inventor *luzerine*.

—The Rev. W. Fox, of Brixton, near Brooke, Isle of Wight, has discovered in the vast wealden formation, at the back of the island, a new reptile of the Dinosaurian family. The only parts of the skeleton wanting are the head and neck. The animal was above six feet long, from the shoulder to the rump, and was furnished with a massive tail five feet long. The legs were about four feet in length, terminating in a broad, short foot. Plates of bone from half an inch to four inches in diameter, and about half an inch thick, covered its body, with the exception of its back, which was protected by a great bony shield. Spine-like bones ran along the sides of the body and tail, some of which are fifteen inches long and weigh seven pounds.

MISCELLANY.

—Mrs. Southworth's method of publication is thus described: "Her plan is to hit the public thrice with one work. It first appears in the *London Journal* under one title, and then in a New York sensation weekly with a second name, and finally as a book, with a third name."

—In New York city there are 15,000 dram-shops, and 300,000 drinkers, each drinking two gills of liquor per day—300,000 barrels a year. This quantity would make a reservoir 900 feet long, 50 feet wide, and 63 feet deep, and could float four large ships in full sail; at sixty dollars per barrel, it amounts to \$18,000,000. Out of 7,000 cases tried before the Court of Special Sessions last year, not more than 94 were sober when arrested. Paupers in the city cost \$4,000,000 a year.

—"How shameful it is that you should fall asleep," said a dull preacher to a drowsy audience, "while that poor idiot," pointing to an idiot who stood staring at him, "is awake and attentive!" "Perhaps," said the fool, "I would have been asleep too, if I had not been an idiot."

—Just as the brain may be removed from a tortoise, and the animal will still live, so, too, without brains, will certain books live. The arts of the publisher and the circulating library keep them in motion. Their life, however, is purely mechanical, and consists in being lifted from shelf to shelf.

—"I think our church will last a good many years yet," said a waggrish deacon to his minister; "I see the *sleepers* are very sound."

—Swift said that the reason a certain university was a learned place, was, that most persons took some learning there, and few brought any away with them; so it accumulated.

FORTUNE.—Fortune may favor fools; but that is a poor reason why a man should make a fool of himself.

—Satire is both foolish and wicked in the school-room, and those teachers who resort to it proclaim their own weakness. Teachers who do not respect the feelings of their pupils cannot expect the pupils to respect theirs.

—In the districts of Young Hian, and of Meisonug Hian, in China, there exists a large number of salt-water wells extending over a space of about six leagues, which are actively explored by the neighboring population. From the mouth of these wells arise columns of inflammable air, so that if a torch be applied to the opening, globes of fire of from twenty to thirty feet high are seen to arise, shining with a brilliant light. The Chinese arch over these sources of gas

with long bamboo tubes, and the gas communicated through these tubes serves to illuminate the machines by which the salt-wells and the places where they are situated are explored.

—It is an important fact, that if a meat-pie is made without a hole in the crust, to let out certain emanations from the meat, colic, vomiting, and other symptoms of slight poisoning will occur.

—A young lady, after having been severely interrogated by an ill-tempered counsel, said she never before fully understood what was meant by *cross-examination*.

—The necessity of putting clauses in their proper places is seen in the subjoined extract from an editor's notice of a poem: "The poem published this week was composed by an esteemed friend, *who has lain in his grave many years for his own amusement.*"

—"Can you inform me," said a student to a bookseller, "whether I can find anywhere the biography of Pollock?" "Yes," said the bookseller: "I dare say you'll find it in the *Course of Time.*"

—The construction of the English language must appear most formidable to a foreigner. One of them, looking at a picture of a number of vessels, said, "See, what a flock of ships!" He was told that a flock of ships was called a fleet, and that a fleet of sheep was called a flock. And it was added, for his guidance in mastering the intricacies of our language, that "a flock of girls is called a bevy, that a bevy of wolves is called a pack, and a pack of thieves is called a gang, and a gang of angels is called a host, and a host of porpoises is called a shoal, and a shoal of buffaloes is called a herd, and a herd of children is called a troop, and a troop of partridges is called a covey, and a covey of beauties is called a galaxy, and a galaxy of ruffians is called a horde, and a horde of rubbish is called a heap, and a heap of oxen is called a drove, and a drove of blackguards is called a mob, and a mob of whales is called a school, and a school of worshippers is called a congregation, and a congregation of engineers is called a corps, and a corps of robbers is called a band, and a band of locusts is called a swarm, and a swarm of people is called a crowd."

—One of Theodore Hook's friends was an enthusiast on grammar; a badly constructed sentence, or a false quantity, inflicted as much pain on his sense of hearing as a false note in music does on the ear of a musician. Theodore Hook said of this grammarian, "If any thing could cause his ghost to return after death, it would be a grammatical error in the inscription on his tombstone."